

WHAT IS CLAIMED IS:

1. A semiconductor resin mold comprising:
a resin molding cavity having an attachment
surface to which a resin tape substrate with a
5 semiconductor chip mounted thereon is attached; and
a plurality of suction holes opened in said
attachment surface and connectable to a suction system.
- 10 2. The semiconductor resin mold according to
claim 1, further comprising an upper mold member; and a
lower mold member assembled with the upper mold member
to define said cavity.
- 15 3. The semiconductor resin mold according to
claim 1, wherein said plurality of suction holes are
disposed in a middle portion of said attachment surface
and in a periphery of the middle portion.
4. The semiconductor resin mold according to
claim 3, wherein said suction holes have the same size.
- 20 5. The semiconductor resin mold according to
claim 1, further comprising a plurality of slits formed
in said attachment surface, wherein said suction holes
have openings disposed in the plurality of slits.
- 25 6. The semiconductor resin mold according to
claim 3, further comprising a plurality of slits formed
in said attachment surface, wherein said suction holes
have openings disposed in the plurality of slits.
7. The semiconductor resin mold according to
claim 3, wherein said suction holes in the middle

portion of said attachment surface and said suction holes in the peripheral portion of said attachment surface are connectable to different suction systems.

8. The semiconductor resin mold according to
5 claim 7, wherein said different suction systems
are driven successively by a control circuit at
a predetermined time interval.

9. The semiconductor resin mold according to
claim 5, wherein said suction hole in the middle
10 portion of said attachment surface and said suction
hole in a periphery of the middle portion are formed
independently to be connectable to different suction
systems.

10. The semiconductor resin mold according to
15 claim 9, wherein said different suction systems
are driven successively by a control circuit at
a predetermined time interval.

11. A semiconductor resin molding method of
sealing a mount portion of a semiconductor chip on
20 a resin tape substrate with a resin molded body
excluding a back surface of the resin tape substrate,
said method comprising:

25 preparing a mold comprising a cavity having
a plurality of suction holes connectable to a suction
system in an attachment surface to which said resin
tape substrate is attached;

attaching said resin tape substrate to

the attachment surface of the cavity of said mold;
sucking/fixing said resin tape substrate to the
attachment surface of said cavity after the step of
attaching said resin tape substrate to the attachment
surface; and

supplying a resin into the cavity of said mold
after the step of sucking/fixing said resin tape
substrate onto the attachment surface.

12. The semiconductor resin molding method
10 according to claim 11, wherein said plurality of
suction holes are disposed in a middle portion of said
attachment surface and in a periphery of the middle
portion.

13. The semiconductor resin molding method
15 according to claim 11, wherein said suction holes are
disposed in a plurality of slits formed in said
attachment surface.

14. The semiconductor resin molding method
according to claim 12, wherein said suction holes have
20 openings disposed in a plurality of slits formed in
said attachment surface.

15. The semiconductor resin molding method
according to claim 12, wherein said suction holes in
the middle portion of said attachment surface and said
25 suction holes in a periphery of the middle portion are
connectable to different suction systems.

16. The semiconductor resin molding method

according to claim 14, wherein said suction holes in the middle portion of said attachment surface and said suction holes in a periphery of the middle portion are connectable to different suction systems.

5 17. The semiconductor resin molding method according to claim 15, wherein said step of sucking/fixing said resin tape substrate attached to the attachment surface of said cavity comprises:

10 sucking/fixing the middle portion of said resin tape substrate by said suction hole in the middle portion of said attachment surface; and

15 subsequently sucking/fixing said resin tape substrate by said suction hole in the periphery of the middle portion of said attachment area surface.

18. The semiconductor resin molding method according to claim 15, wherein said different suction systems are driven at a predetermined time interval.

19. The semiconductor resin molding method according to claim 16, wherein said different suction systems are driven at a predetermined time interval.